

## ABSTRACT

A channel sharing method and device thereof are disclosed. The method starts by providing a plurality of channels, wherein each of the channels comprises a time interval. A time slot having a width being  $X$  times of a maximum value of all the time intervals is provided, wherein  $C$  is a positive numbef. Each of the channels is generated by a permutation of at least one repeat time, which is  $M$  times of the width of the time slot, wherein  $M$  is an integer larger than 0. A first time slot of the repeat time comprises a signal. A maximum time span of the signals in each channel is the time interval of each channel. All the channels are arranged so that at least one of the signals in each channel is not collided with the signals of other channels in a worst time delay.